

which program guide data for a given memory configuration is stored for use by the interactive television program guide; and

control circuitry in the user television equipment, wherein the control circuitry is configured to:

receive program guide data for a new memory configuration;

reconfigure the memory to accommodate the program guide data for the new memory configuration, wherein different categories of program guide data are stored in the memory, the control circuitry configured to reconfigure is further configured to reallocate the memory among the different categories of program guide data; and

reallocate the memory based on information in a database configuration record.

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Concl.

REMARKS

The Specification

The specification has been amended as suggested by the Examiner to correct the reference to FIG. 7. Applicants are also correcting two similar errors in other

portions of the specification. No new matter has been added.

Claims 1, 2, 19, 20, 23-28, 37, 38, 56, and 58-64

In the Office Action, claims 1, 2, 19, 23-28, 37, 38, and 58-64 were rejected under § 102(e) as being unpatentable under Lazarus et al. U.S. Patent No. 5,652,613. Claims 20 and 56 were rejected under § 103(a) as being unpatentable over Lazarus in view of Sturges U.S. Patent No. 5,930,827. These rejections are respectfully traversed.

As set forth in claims 1, 23, 37, and 59, which have been amended to more clearly describe applicants' invention, applicants' program guide system reconfigures or adjusts the amount of memory used to store program guide data in response to information received from a remote source. An example is shown in FIG. 2 and described on pages 3-6 and 8 of applicants' specification. In step 4 of this example, the system decreases the amount of memory used to store program guide data upon receiving information from a remote source, thereby accommodating the

installation of a new application or new channels in the memory of step 6.

These features are not shown in Lazarus. The amount of memory used to store program guide data in Lazarus's system is fixed and is not adjustable or reconfigurable. As a result, Lazarus uses a "housekeeping routine" to delete expired or lower priority data to make memory available within this fixed amount. Moreover, Lazarus's "housekeeping routine" runs periodically and independently, not in response to information received from a remote source.

Claims 1, 23, 37, and 59 are therefore patentable over Lazarus. Claims 2, 19, 20, 24-28, 38, 56, 58, and 60-64 depend from claims 1, 23, 37, and 59 and are therefore also in condition for allowance.

Claims 3-18, 21, 22, 29-36, 39-55, 57, and 65-72

In the Office Action, claims 3, 21, 22, 29, 39, 55, 57, and 65 were indicated to be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. This has been done as follows:

Claim 3 has been rewritten in independent form incorporating the features of claims 1 and 2.

Claim 21 has been rewritten in independent form incorporating the features of claim 1.

Claim 22 has been rewritten in independent form incorporating the features of claim 1.

Claim 29 has been rewritten in independent form incorporating the features of claims 23 and 28.

Claim 39 has been rewritten in independent form incorporating the features of claims 37 and 38.

Claim 55 has been rewritten in independent form incorporating the features of claim 37.

Claim 57 has been rewritten in independent form incorporating the features of claim 37.

Claim 65 has been rewritten in independent form incorporating the features of claims 59 and 64.

The amendments to claims 3, 21, 22, 29, 39, 55, 57, and 65 place these claims in condition for allowance. Claims 4-18, 30-36, 40-54, and 66-72 depend from claims 3, 29, 39, and 65 and are allowable because claims 3, 29, 39, and 65 are allowable.

New Claims

Claims 73-78 have been added.

New claim 73 is a non-means-plus-function claim corresponding to amended claim 1. Claim 1 is allowable for the reasons given above. Claim 73 is allowable for the same reasons that claim 1 was allowed.

New claim 74 is a non-means-plus-function claim corresponding to allowed claim 3. Claim 74 is allowable for the same reasons that claim 3 was allowed.

New claim 75 is a non-means-plus-function claim corresponding to allowed claim 21. Claim 75 is allowable for the same reasons that claim 21 was allowed.

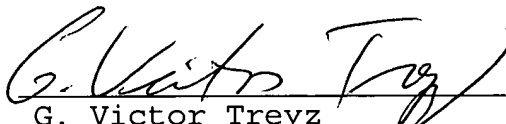
New claim 76 is a non-means-plus-function claim corresponding to allowed claim 22. Claim 76 is allowable for the same reasons that claim 22 was allowed.

New claim 77 is a non-means-plus-function claim corresponding to amended claim 23. Claim 23 is allowable for the reasons given above. Claim 77 is allowable for the same reasons that claim 23 was allowed.

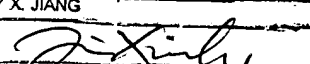
New claim 78 is a non-means-plus-function claim corresponding to allowed claim 29. Claim 78 is allowable for the same reasons that claim 29 was allowed.

The foregoing demonstrates that claims 1-78 are
in condition for allowance. Reconsideration of the
application and allowance are respectfully requested.

Respectfully submitted,


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APPENDIX TO REPLY TO FEBRUARY 27, 2002 OFFICE ACTION

This Appendix presents the amendments that have been made to the specification and the claims in bracket-and-underline format.

The Specification Amendments

The paragraph starting on line 12 of page 11 has been amended as follows:

[FIG. 5] FIG. 7 shows an illustrative configuration of memory 50 in set-top box 28. Memory 50 contains program guide application 60, which includes a database configuration record 62 for allocating television program guide data 67 for various categories of listings information, such as television programming data 68 for category A of programming and television programming data 69 for category B of programming. Categories A and B and other such categories include special events, pay-per-view movies, sporting events, non-pay-per-view movies, or regular programs.

The paragraph starting on line 5 of page 12 has been amended as follows:

Database configuration record 62 uses program listings look-up table 64 and program descriptions look-up table 66 as guides when allocating memory between different types of television program guide data 67. When it is desired to download a new version of the database configuration record 62 to set-top boxes 28, e.g., to make more memory available to accommodate a new application, program guide 60 preferably accesses the newly introduced database configuration record 62 to determine which of the program listings levels 86 of program listings look-up table 80 of [FIG. 6] FIG. 8 and program descriptions levels 96 of program descriptions look-up table 90 of [FIG. 7] FIG. 9 coincides with the amount of memory it is desired to use for the program guide application (which relates directly to the amount of memory that will be made available for the new application).

The paragraph starting on line 7 of page 13 has been amended as follows:

Program listings table 80 of FIG. 8 and program descriptions table 90 of FIG. 9 show how much data is stored in memory for each category of data and for each

level of memory usage. The program guide memory allocation scheme that uses the most memory for the program guide application corresponds to level zero. The program guide memory allocation scheme that uses the least memory for the program guide application corresponds to level 14. At the highest level of program guide memory usage (level zero), listings and descriptions data for special events is available for 30 days into the future. Data for pay-per-view movies, sporting events, non-pay-per-view movies, and regular programs is available for 7 days into the future. The 30 day entry in the level zero "any program" category in table 80 of [FIG. 6] FIG. 8 and table 90 of [FIG. 7] FIG. 9 indicates that any program that is more than thirty days into the future should be discarded. The highest level of program guide memory usage is suitable for arrangements in which the program guide application is the only application loaded into set-top boxes 28 and a minimum number of channels is being supported.

The Claim Amendments

Claims 73-78 have been added.

Claims 1, 3, 21-23, 29, 37, 39, 55, 57, 59, and 65 have been amended as follows:

1. (Amended) An interactive television program guide system in which an interactive television program guide is implemented on user television equipment, comprising:

memory in the user television equipment in which program guide data is stored for use by the interactive television program guide;

means for receiving information from a remote source on the amount of memory for the interactive television program guide to use to store the program guide data; and

means for adjusting the amount of memory used by the interactive television program guide to store the program guide data in response to the received information.

3. (Amended) [The interactive television program guide system defined in claim 2 further comprising] An interactive television program guide system in which an interactive television program guide is implemented on user

television equipment, comprising:

memory in the user television equipment in which program guide data is stored for use by the interactive television program guide;

means for receiving information on the amount of memory for the interactive television program guide to use to store the program guide data;

means for adjusting the amount of memory used by the interactive television program guide to store the program guide data in response to the received information, wherein different categories of program guide data are stored in the memory;

means for reallocating the memory among the different categories of program guide data when the amount of memory used to store the program guide data is adjusted;
and

means for reallocating the memory based on information in a database configuration record.

21. (Amended) [The interactive television program guide system defined in claim 1] An interactive television program guide system in which an interactive

television program guide is implemented on user television equipment, comprising:

memory in the user television equipment in which program guide data is stored for use by the interactive television program guide;

means for receiving information on the amount of memory for the interactive television program guide to use to store the program guide data;

means for adjusting the amount of memory used by the interactive television program guide to store the program guide data in response to the received information, wherein different categories of program guide data are stored in the memory and wherein the program guide data stored in the memory corresponds to a given television channel line-up [the interactive television program guide system further comprising]; and

means for determining an amount of memory available for each of the different categories of program guide data after the addition of new channels, wherein the means for adjusting the memory adjusts based on the amounts of memory that are determined to be available.

22. (Amended) [The interactive television program guide system defined in claim 1] An interactive television program guide system in which an interactive television program guide is implemented on user television equipment, comprising:

memory in the user television equipment in which program guide data is stored for use by the interactive television program guide;

means for receiving information on the amount of memory for the interactive television program guide to use to store the program guide data;

means for adjusting the amount of memory used by the interactive television program guide to store the program guide data in response to the received information, wherein the program guide data stored in the memory corresponds to a given television channel line-up [the interactive television program guide system further comprising]; and

means for detecting a change in the amount of channels offered in the television channel line-up.

23. (Amended) An interactive television program guide system in which an interactive television program guide is implemented on user television equipment, comprising:

memory in the user television equipment in which program guide data [for a given memory configuration] is stored for use by the interactive television program guide;

means for receiving [program guide data for] information from a remote source defining a new memory configuration; and

means for reconfiguring the memory to accommodate the program guide data [for] in the new memory configuration.

29. (Amended) [The interactive television program guide system defined in claim 28 further comprising] An interactive television program guide system in which an interactive television program guide is implemented on user television equipment, comprising:

memory in the user television equipment in which program guide data for a given memory configuration

is stored for use by the interactive television program
guide;

means for receiving program guide data for a
new memory configuration;

means for reconfiguring the memory to
accommodate the program guide data for the new memory
configuration, wherein different categories of program
guide data are stored in the memory, the means for
reconfiguring further comprising means for reallocating the
memory among the different categories of program guide
data; and

means for reallocating the memory based on
information in a database configuration record.

37. (Amended) A memory adjustment method for use
in an interactive television program guide system in which
an interactive television program guide is implemented on
user television equipment that has memory, comprising:

storing program guide data in the memory for
use by the interactive television program guide;

receiving information from a remote source
on the amount of memory available for the interactive

television program guide to use to store the program guide data; and

adjusting the amount of memory used for storing the program guide data in response to the received information.

39. (Amended) [The method defined in claim 38 further comprising] A memory adjustment method for use in an interactive television program guide system in which an interactive television program guide is implemented on user television equipment that has memory, comprising:

storing program guide data in the memory for use by the interactive television program guide;

receiving information on the amount of memory available for the interactive television program guide to use to store the program guide data;

adjusting the amount of memory used for storing the program guide data in response to the received information, wherein different categories of program guide data are stored in the memory;

reallocating the memory among different categories of program guide data; and

reallocating the memory based on information in a database configuration record.

55. (Amended) [The method defined in claim 37 further comprising] A memory adjustment method for use in an interactive television program guide system in which an interactive television program guide is implemented on user television equipment that has memory, comprising:

storing program guide data in the memory for use by the interactive television program guide;

receiving information on the amount of memory available for the interactive television program guide to use to store the program guide data;

adjusting the amount of memory used for storing the program guide data in response to the received information, wherein different categories of program guide data are stored in the memory; and

detecting the addition of at least one new channel to a given television channel line-up and allocating the memory among the different categories of program guide data when the amount of memory used for stored program guide data is adjusted in response to an

addition of at least one new channel to the given television channel line-up.

57. (Amended) [The method defined in claim 37 further comprises] A memory adjustment method for use in an interactive television program guide system in which an interactive television program guide is implemented on user television equipment that has memory, comprising:

storing program guide data in the memory for use by the interactive television program guide;

receiving information on the amount of memory available for the interactive television program guide to use to store the program guide data;

adjusting the amount of memory used for storing the program guide data in response to the received information, wherein different categories of program guide data are stored in the memory; and

determining an amount of memory available for each of the different categories of program guide data after the addition of new channels, wherein the adjusting the memory adjusts based on the amounts of memory that are determined to be available.

59. (Amended) A memory reconfiguration method for use in an interactive television program guide system in which an interactive television program guide is implemented on user television equipment that has memory in which program guide data [for a given memory configuration] is stored, comprising:

receiving [program guide data for]
information from a remote source defining a new memory configuration; and

reconfiguring the memory to accommodate the program guide data [for] in the new memory configuration.

65. (Amended) [The method defined in claim 64 further comprising] A memory reconfiguration method for use in an interactive television program guide system in which an interactive television program guide is implemented on user television equipment that has memory in which program guide data for a given memory configuration is stored, comprising:

receiving program guide data for a new memory configuration;

reconfiguring the memory to accommodate the

program guide data for the new memory configuration,
wherein different categories of program guide data are
stored in the memory, reconfiguring further comprising
reallocating the memory among the different categories of
program guide data; and

reallocating memory based on information in
a database configuration record.